

ABSTRACT OF THE DISCLOSURE

A method for manufacturing a semiconductor device includes the steps of forming a nitrogen-containing oxide film on a substrate for use as a gate insulating film, annealing the gate insulating film in an atmosphere containing oxygen, annealing the gate insulating film in an oxygen-free, inert atmosphere, and forming an electrode film on the twice annealed gate insulating film. The method may further include the steps of forming a gate electrode by patterning of the electrode film, forming LDD, forming side wall insulating films and forming source/drain regions.